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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,317	04/18/2006	Jeffrey A. Chapman	GB 030193	9054
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EXAMINER CHEN, YUAN L				
ART UNIT 4193		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/576,317

Applicant(s)

CHAPMAN ET AL.

Examiner

Yuan L. Chen

Art Unit

4193

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "opening" in Claim 13 line 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong et al. (Pub. No.: 2002/0154187)

With respect to Claim 1, Wong et al. disclose in Fig. 4 and in [0035] lines 17 - 18: method of printing a feature (444) onto a substrate (402) comprising:

printing a plurality of spaced apart elements (440) onto the substrate (402), each of the elements (440) being smaller than the feature (444) and the spacing between the elements (440) being such that they combine (merging in [0035] line 17) on the substrate (402) to form the feature (444).

With respect to Claim 2, Wong et al. disclose in Fig. 4 and in [0035] lines 1 - 3: a method according to claim 1, wherein the elements (440) comprise a printing medium (material in [0035] line 3) and combine by coalescing ([0025] line 4).

3. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Clinton et al. (Patent No.: GB 2030929)

With respect to Claim 1, Clinton et al. disclose in page 1 lines 14 - 18: method of printing a feature (a uniform of coating) onto a substrate (surface) comprising:

printing a plurality of spaced apart elements (series of adjacent lines) onto the substrate (surface), each of the elements (series of adjacent lines) being smaller than the feature (a uniform of coating) and the spacing between the elements (series of adjacent lines) being such that they combine (coalesces) on the substrate (surface) to form the feature (a uniform of coating).

With respect to Claim 13, Clinton et al. disclose in Fig. 8 and in page 5 lines 29 - 33: a method according to claim 1, comprising printing a plurality of elements (single printing) which coalesce to form a continuous feature (areas of overlap and single printing) having openings (unprinted) in pre-defined positions.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 – 12 and 14 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Yi et al. (Pub. No.: 2003/0081095).

With respect to Claim 3, Wong et al. teach all the limitations of Claim 3 except using a plurality of portions.

However Yi et al. teach in Fig. 2 and in [0011] lines 4 - 7: a method according to claim 1 further comprising:

printing the elements (24) onto the substrate (10) using a printing means, wherein the printing means comprises a plurality of portions (26), each of the portions corresponding to one of the elements (24).

Therefore it would be obvious to a person of ordinary skill in the art at the time of invention was made to have modified Wong et al.'s method of printing by using the portions as taught by Yi et al. because the modification/combination would give a uniform coating of the printing materials over all of the substrate being printed for the purpose of making higher quality of printing.

The modification/combination meets all the limitation of Claim 3.

With respect to Claim 4, the modification/combination also meets all the limitations of Claim 4: a method (Fig. 2 of Yi et al.) according to claim 3, wherein the portions (26) comprise recesses (see Fig. 2A) in a surface of the printing means.

With respect to Claim 5, the modification/combination also meets all the limitations of Claim 5: a method (Fig. 2 of Yi et al.) according to claim 3 further comprising:

applying (filled [0011] line 4) a printing medium (29) to the portions (26); and

transferring ([0013] line 3) the printing medium (29) to the substrate (10).

With respect to Claim 6, the modification/combination also meets all the limitations of Claim 6: a method (Fig. 2 of Yi et al.) according to claim 5, wherein the printing medium (29) is transferred to the substrate (10) via an intermediate device (25).

With respect to Claim 7, the modification/combination also meets all the limitations of Claim 7: a method (Fig. 4 of Wong et al.) according to claim 3, wherein the portions (440 resulted from modification of 26 taught by Yi et al.) are of equal or substantially similar size.

With respect to Claim 8, the modification/combination also meets all the limitations of Claim 8: a method (Fig. 4 of Wong et al.) according to claim 3, wherein the portions (440 resulted from modification of 26 taught by Yi et al.) are parallel.

With respect to Claim 9, the modification/combination also meets all the limitations of Claim 9: a method (Fig. 2 of Yi et al.) according to claim 3, wherein the printing means comprises a cliché (23 in [0053] line 1).

With respect to Claim 10, the modification/combination also meets all the limitations of Claim 10: a method (Fig. 2 of Yi et al.) according to claim 2, wherein the printing medium (29) comprises a resist material ([0011] line 4).

With respect to Claim 11, the modification/combination also meets all the limitations of Claim 11: a method (Fig. 4 of Wong et al.) according to claim 1, wherein each of the elements (440) is narrower than the feature (444).

With respect to Claim 12, the modification/combination also meets all the limitations of Claim 12: a method (Fig. 4 of Wong et al.) according to claim 1, wherein each of the elements (440) is shorter than the feature (444).

With respect to Claim 14, the modification/combination also meets all the limitations of Claim 14: apparatus (in the title of Wong et al.) for printing (Fig. 4) a feature (444) onto a substrate (402), comprising means for printing a plurality of spaced apart elements (440) onto the substrate (402), each of the elements (440) being smaller than the feature (444) and the spacing between the elements (440) being such that the elements (440) combine on the substrate (402) to form the feature (444).

With respect to Claim 15, the modification/combination also meets all the limitations of Claim 15 as applied to Claim 3.

With respect to Claim 16, the modification/combination also meets all the limitations of Claim 16 as applied to Claim 4.

With respect to Claim 17, the modification/combination also meets all the limitations of Claim 17 as applied to Claim 7.

With respect to Claim 18, the modification/combination also meets all the limitations of Claim 18 as applied to Claim 8.

With respect to Claim 19, the modification/combination also meets all the limitations of Claim 19 as applied to Claim 9.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference of Trask discloses a method for enhancing the uniformity and consistency of the printing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuan L. Chen whose telephone number is 571-270-3799. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Nguyen can be reached on 571-272-1753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Yc

/Long Nguyen/
Supervisory Patent Examiner
Art Unit 4193